

Report on the ECN Workshop on Source Separation of Biowaste held in Barcelona, December 2003

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Structure of Presentation

- ◆ Update on Environmental Legislation
- ◆ Key issues relating to source separation
- ◆ Case study- Germany

Environmental Legislation

- ◆ EU Biowaste Directive
- ◆ Soil Strategy
- ◆ Sludge Directive

Key Issues

- ◆ Collection Systems
- ◆ Possibility of increased growth in waste arisings (especially green waste)
- ◆ Educational and environmental awareness

Key Issues

- ◆ Variable capture rates
 - Urban Areas: 27kg/inh/yr
 - Rural Areas: 111kg/inh/yr(Study Carried out in Germany)
- ◆ Biobags

Waste Fees

Pay As You Throw / Fixed Rates / 'Waste Tourism'

Area	Capture rates of Biowaste (kg/inh/yr)
Urban Area	
No charge for biowaste collection	100-150
Variable charges	40-60
Rural Area	
No charge for biowaste collection	100-150
Variable charges	50-70

Case Study - Germany

- ◆ Over 20 years experience
- ◆ Door to door and bring systems the norm
- ◆ Packer trucks- (revolving drum or compression-plate vehicles)

Status of Source Separation In Germany

- ◆ 61% of the German population have access to S.S biowaste collections
- ◆ 81% of all municipalities participate in S.S collection of biowaste
- ◆ 59% of municipalities obliged to participate (most have choice to opt out and home compost)
- ◆ 4.5 million tonnes biowaste collected in 2003, approx. 110kg/inh/yr with a capture rate of 59%

Compost Quality

- ◆ Impurities affected compost quality
(11% of loads had impurities >5.0%; 32.8% of loads had impurities 3.1-5%)
- ◆ Heavy metal concentrations decreased
(except for copper) 1990-1999

Importance of Source Separation

Reference: Barth, J., 2001, State of the art of source separation and separate collection of organic waste in Europe

	Mixed Waste Compost 1984 (mg/kg)	Biowaste Compost 2003 (mg/kg)
Lead	513	46.4
Cadmium	5.5	0.47
Chromium	71.4	25.3
Copper	274	57.7
Nickel	44.9	16.3
Mercury	Not specified	0.16
Zinc	1,570	203

Thank you for your attention.